

WHAT IS CLAIMED IS:

1 1. A hyaluronic acid modification product in which hyaluronic acid and/or a
2 pharmaceutically acceptable salt thereof is bound to a block polymer selected from
3 polyethylene oxide-polypropylene oxide-polyethylene oxide block polymer, polypropylene
4 oxide-polyethylene oxide-polypropylene oxide block polymer, polyethylene oxide-polylactic
5 acid/polyglycolic acid copolymer-polyethylene oxide block polymer, polylactic
6 acid/polyglycolic acid copolymer- polyethylene oxide-polylactic acid/polyglycolic acid
7 copolymer block polymer, polyethylene oxide-polylactic acid-polyethylene oxide block
8 polymer and polylactic acid-polyethylene oxide-polylactic acid block polymer.

1 2. The hyaluronic acid modification product according to claim 1, wherein said
2 block polymer is a polyethylene oxide-polypropylene oxide-polyethylene oxide block
3 polymer or a polypropylene oxide-polyethylene oxide-polypropylene oxide block polymer.

1 3. The hyaluronic acid modification product according to claim 1 or 2, wherein
2 the most part of said block polymer is bound to said hyaluronic acid and/or a
3 pharmaceutically acceptable salt thereof at only one of its two ends.

1 4. The hyaluronic acid modification product according to claim 1 or 2, wherein
2 said block polymer is bound to said hyaluronic acid and/or a pharmaceutically acceptable
3 salt thereof at only one of its two ends.

1 5. The hyaluronic acid modification product according to any one of claims 1 to 4,
2 wherein said block polymer is bound to the carboxyl group of said hyaluronic acid and/or a
3 pharmaceutically acceptable salt thereof.

1 6. The hyaluronic acid modification product according to any one of claims 1 to 5,
2 wherein the phase transition temperature of said hyaluronic acid modification product in
3 physiological saline and/or phosphate physiological saline is in the range from 20°C to 35°C
4 when the concentration of said hyaluronic acid modification product is 10.0% w/v or less.

1 7. The hyaluronic acid modification product according to any one of claims 1 to 6,
2 wherein the weight average molecular weight of said block polymer is 1200 daltons or more.

1 8. The hyaluronic acid modification product according to any one of claims 1 to 7,
2 wherein the ratio of introduction of said block polymer into the hyaluronic acid and/or a
3 pharmaceutically acceptable salt thereof is at least 8 mol % per the glucuronic acid in the
4 hyaluronic acid and/or a pharmaceutically acceptable salt thereof.

1 9. The hyaluronic acid modification product according to any one of claims 1 to 8,
2 wherein the weight average molecular weight of said hyaluronic acid and/or a
3 pharmaceutically acceptable salt thereof is 1,500,000 daltons or less.

1 10. A pharmaceutical composition comprising the hyaluronic acid modification
2 product according to any one of claims 1 to 9 as its main component.

1 11. A pharmaceutical preparation for treating joint diseases, comprising the
2 hyaluronic acid modification product according to any one of claims 1 to 9 as its main
3 component.

1 12. The pharmaceutical preparation according to claim 11, wherein the joint
2 disease is loss of articular cartilage, rheumatoid arthritis, osteoarthritis or scapulo-humeral
3 periarthritis.

1 13. The pharmaceutical preparation according to claim 11 or 12, which is in the
2 form of an injection.

1 14. A method of treating joint diseases, comprising administering to a patient an
2 effective amount of the hyaluronic acid modification product according to any one of claims
3 1 to 9.

1 15. The method according to claim 14, wherein the joint disease is loss of
2 articular cartilage, rheumatoid arthritis, osteoarthritis or scapulo-humeral periarthritis.

1 16. An assisting or treating agent for surgical operation, comprising the
2 hyaluronic acid modification product according to any one of claims 1 to 9 as its main
3 component.

1 17. The assisting or treating agent according to claim 16, wherein the surgical
2 operation is ophthalmic surgery or endoscopic mucosal resection.

1 18. A method of surgical operation, comprising applying to a target site a
2 necessary amount of the hyaluronic acid modification product according to any one of claims
3 1 to 9.

1 19. The method according to claim 18, wherein the surgical operation is
2 ophthalmic surgery or endoscopic mucosal resection.

1 20. A tissue repairing agent comprising the hyaluronic acid modification product
2 according to any one of claims 1 to 9 as its main component.

1 21. The tissue repairing agent according to claim 20, which is used for repairing
2 damage to soft tissue, atrophic irregularity after surgical operation, damage caused by Mohs'
3 chemosurgical treatment, wrinkles or laceration scars in wrinkles.

1 22. A tissue repairing method comprising applying to a target site a necessary
2 amount of the hyaluronic acid modification product according to any one of claims 1 to 9.

1 23. The surgical operation method according to claim 22, which comprises
2 repairing damage to soft tissue, atrophic irregularity after surgical operation, damage caused
3 by Mohs' chemosurgical treatment, wrinkles or laceration scars in wrinkles.